UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/648,733	08/28/2000	Hiroaki Kawamichi	NIT-228	5717

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ART UNIT	PAPER NUMBER
2127	

DATE MAILED: 10/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/648,733	KAWAMICHI ET AL.
	Examiner	Art Unit
	Syed J Ali	2127

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _28 August 2000_ .

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-15_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-15_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☒ None of:

        1. ☒ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _2_ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Priority

1.   Acknowledgment is made of applicant's claim for foreign priority based on an application

filed in Japan on November 12, 1999. It is noted, however, that applicant has not filed a certified

copy of the 11-322118 application as required by 35 U.S.C. 119(b).

Claim Objections

2.   Claim 11 is objected to because of the following informalities: The limitation of

"wherein each element comprising" is presented, which should read "wherein each element

comprises". Appropriate correction is required.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the
subject matter which the applicant regards as his invention.

4.   Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for

failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention.

Claim 1 recites the limitation "said respective elements" in line 5. There is insufficient

antecedent basis for this limitation in the claim. Claims 2-10 depend on indefinite claim 1, and

are therefore indefinite for at least the same reasons as claim 1.

Claim 8 recites the limitation "said significance level" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 9 recites the limitation "said significance level" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 10 recites the limitation "said significance level" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6.   Claims 1, 6, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Man-Hak Tso (USPN 5,706, 509) (hereinafter Man-Hak Tso).

As per claim 1, Man-Hak Tso discloses an information coincidence method for a distribution system having plural elements each including a computation device, comprising the steps of:

supplying common data of common type indicating features of said elements to said respective elements (col. 5 lines 24-35, "Synchronization mechanism 306 is fed inputs D0', D1'

and newly produced Change Lists CL0 and CL1", wherein the inputs indicate the features of the

common data);

receiving said common data by at least one of said plural elements from other elements,

and based on said common data and said common data received from other elements,

determining by said computation device the content of common data for coincidence among said

plural elements (col. 5 lines 36-55, "Change Detection mechanism 302 determines the changes

which have been made to data sets D0' and D0 between synchronizations to produce Change List

CL0. In step 321, Change Detection mechanism 302 performs the same operation to produce

Change List CL1 from data sets D1' and D1"); and

correcting the content of the common data of said plural elements to coincide with each

other based on the determined content (col. 4 line 63 - col. 5 line 17, "Change Existing Data 308

modifies existing data to make the data sets equivalent").

As per claim 6, Man-Hak Tso discloses an information coincidence method according to

claim 1, wherein said method is performed periodically (col. 8 lines 52-64, "Change Detection

mechanism 302 deduces the last synchronization. This is accomplished by first saving a copy of

the data set at the end of a synchronization. At the next synchronization, the records are

compared in the modified data set [e.g. D0'] with the saved data set [e.g. D0], detecting the

changes which must have happened since the last synchronization", wherein synchronization is

triggered in response to a detection of a change in the data, and thus is performed periodically in

the sense that data is changed periodically).

As per claim 11, Man-Hak Tso discloses a distribution system having plural elements

each including a computation device, wherein each element comprising:

means for holding common data of common type indicating features of said element (col.

5 lines 24-35, "Synchronization mechanism 306 is fed inputs D0', D1' and newly produced

Change Lists CL0 and CL1", wherein the inputs indicate the features of the common data);

means for receiving said common data by at least one of said plural elements from other

elements, and based on said common data and said common data received from other element,

determining by said computation device the content of common data for coincidence among said

plural elements (col. 5 lines 36-55, "Change Detection mechanism 302 determines the changes

which have been made to data sets D0' and D0 between synchronizations to produce Change List

CL0. In step 321, Change Detection mechanism 302 performs the same operation to produce

Change List CL1 from data sets D1' and D1"); and

means for correcting the contents of the common data of said plural elements based on

the determined contents (col. 4 line 63 - col. 5 line 17, "Change Existing Data 308 modifies

existing data to make the data sets equivalent").

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

8.   Claims 2, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Man-Hak

Tso in view of Nagai et al. (USPN 5,223,991) (hereinafter Nagai).

As per claim 2, Nagai discloses the following limitations not shown by Man-Hak Tso,

specifically an information coincidence method according to claim 1, wherein said step of

determining the content of said common data is performed by majority rule (col. 3 lines 49-58,

"The ID data latched in the respective registers 21 to 28 are supplied to the majority circuit 30

which determines an output ID data according to the majority rule").

It would have been obvious to one of ordinary skill in the art to combine Man-Hak Tso

with Nagai since for resolving data discrepancies, it is imperative that the data is known to be

reliable. Especially in the case where there is no central repository, there exists a possibility that

inconsistencies may exist in data. In the specific example of Man-Hak Tso, the change detection

circuit may produce many change lists. By feeding these as inputs to a majority circuit, such as

the one disclosed by Nagai, that change data can be verified.

As per claim 12, Nagai discloses the following limitations not shown by Man-Hak Tso,

specifically a distribution system according to claim 11, wherein said means for determining the

content of said common data determines the content by majority rule (col. 3 lines 49-58, "The ID

data latched in the respective registers 21 to 28 are supplied to the majority circuit 30 which

determines an output ID data according to the majority rule").

It would have been obvious to one of ordinary skill in the art to combine Man-Hak Tso

with Nagai for reasons discussed above in reference to claim 2.

9.   Claims 3-4, 8-10, 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Man-Hak Tso in view of Roth.

As per claim 3, Roth discloses the following limitations not shown by Man-Hak Tso,

specifically an information coincidence method according to claim 1, further comprising the step

of defining a significance level for each common data,

wherein said step of determining the content of said common data is performed by

majority rule using said significance level (col. 11 lines 34-55, "The general approach is to

assign to each expert a weight [hereinafter a second weight] of the form Υ^m, where $0<\Upsilon<1$ is a

constant and m is the total number of mistakes incurred by the expert so far. The essential

property is that the weight of experts making many mistakes rapidly disappears. By a specific,

non limiting case, a variant of the above mentioned weighted majority scheme is utilized in

which Υ is initially set to 1 and decreases its value with the number of examples seen, to avoid

weighing mistakes of the initial hypotheses too heavily").

It would have been obvious to one of ordinary skill in the art to combine Man-Hak Tso

with Roth since the weighted majority scheme disclosed by Roth has wide applicability in terms

of providing a way of testing the reliability of data. Specifically, although Roth is related to a

spell check algorithm, the algorithm can be used in other embodiments to provide a way of

verifying data. In relation to Man-Hak Tso, the weighted majority scheme can be used to verify

data inconsistencies, by assigning a weight to each change list, and determining the statistical

significance of varying sets of data. In that sense, a statistical anomaly would not cause data

discrepancies since the weighted majority algorithm would have a means of eliminating data that is determined to be erroneous.

As per claim 4, Roth discloses the following limitations not shown by Man-Hak Tso, specifically an information coincidence method according to claim 1, further comprising the step of defining a significance level for each element,

wherein said step of determining the content of said common data is performed by majority rule using said significance level (col. 11 lines 34-55, "The general approach is to assign to each expert a weight [hereinafter a second weight] of the form Υ^m, where $0<\Upsilon<1$ is a constant and m is the total number of mistakes incurred by the expert so far. The essential property is that the weight of experts making many mistakes rapidly disappears. By a specific, non limiting case, a variant of the above mentioned weighted majority scheme is utilized in which Υ is initially set to 1 and decreases its value with the number of examples seen, to avoid weighing mistakes of the initial hypotheses too heavily").

It would have been obvious to one of ordinary skill in the art to combine Man-Hak Tso with Roth for reasons discussed above in reference to claim 3.

As per claim 8, Roth discloses the following limitations not shown by Man-Hak Tso, specifically an information coincidence method according to claim 7, wherein said significance level is set based on the number of data updates in said element, and is utilized as a weight in majority rule for coincidence among said common data (col. 11 lines 34-55, "The general approach is to assign to each expert a weight [hereinafter a second weight] of the form Υ^m, where

$0<\Upsilon<1$ is a constant and m is the total number of mistakes incurred by the expert so far. The essential property is that the weight of experts making many mistakes rapidly disappears. By a specific, non limiting case, a variant of the above mentioned weighted majority scheme is utilized in which Υ is initially set to 1 and decreases its value with the number of examples seen, to avoid weighing mistakes of the initial hypotheses too heavily").

It would have been obvious to one of ordinary skill in the art to combine Man-Hak Tso with Roth for reasons discussed above in reference to claim 3. In addition, while Roth is specifically related to a weighted-majority algorithm in which the weights are affected by mistakes that are incurred, the weighting scheme can be modified to suit any number of factors that may reduce chances of error. Specifically, the larger number of times an element is updated, the greater the chance that an error may occur. Modifying the weighting scheme to account for this would have been an obvious modification to one of ordinary skill in the art.

As per claim 9, Roth discloses the following limitations not shown by Man-Hak Tso, specifically an information coincidence method according to claim 7, wherein said significance level is set based on a data update event in said element (col. 11 lines 34-55, "The general approach is to assign to each expert a weight [hereinafter a second weight] of the form Υ^m, where $0<\Upsilon<1$ is a constant and m is the total number of mistakes incurred by the expert so far. The essential property is that the weight of experts making many mistakes rapidly disappears. By a specific, non limiting case, a variant of the above mentioned weighted majority scheme is utilized in which Υ is initially set to 1 and decreases its value with the number of examples seen, to avoid weighing mistakes of the initial hypotheses too heavily").

It would have been obvious to one of ordinary skill in the art to combine Man-Hak Tso with Roth for reasons discussed above in reference to claim 9, wherein the weighting scheme discussed is based upon a data update, and the significance level can be modified to be based on any number of factors.

As per claim 10, Roth discloses the following limitations not shown by Man-Hak Tso, specifically an information coincidence method according to claim 7, wherein said significance level is set in correspondence with data update time in said element (col. 11 lines 34-55, "The general approach is to assign to each expert a weight [hereinafter a second weight] of the form Υ^m, where $0<\Upsilon<1$ is a constant and m is the total number of mistakes incurred by the expert so far. The essential property is that the weight of experts making many mistakes rapidly disappears. By a specific, non limiting case, a variant of the above mentioned weighted majority scheme is utilized in which Υ is initially set to 1 and decreases its value with the number of examples seen, to avoid weighing mistakes of the initial hypotheses too heavily").

It would have been obvious to one of ordinary skill in the art to combine Man-Hak Tso with Roth for reasons discussed above in reference to claim 9, wherein the weighting scheme discussed is based upon a data update, and the significance level can be modified to be based on any number of factors.

As per claim 13, Roth discloses the following limitations not shown by Man-Hak Tso, specifically a distribution system according to claim 11, further comprising means for defining a significance level for each common data (col. 11 lines 34-55, "The general approach is to assign

to each expert a weight [hereinafter a second weight] of the form Υ^m, where $0<\Upsilon<1$ is a constant and m is the total number of mistakes incurred by the expert so far. The essential property is that the weight of experts making many mistakes rapidly disappears. By a specific, non limiting case, a variant of the above mentioned weighted majority scheme is utilized in which Υ is initially set to 1 and decreases its value with the number of examples seen, to avoid weighing mistakes of the initial hypotheses too heavily").

It would have been obvious to one of ordinary skill in the art to combine Man-Hak Tso with Roth for reasons discussed above in reference to claim 3.

As per claim 14, Roth discloses the following limitations not shown by Man-Hak Tso, specifically a distribution system according to claim 11, further comprising means for defining a significance level for each element,

wherein said means for determining the content of said common data determines the content by majority rule using said significance level (col. 11 lines 34-55, "The general approach is to assign to each expert a weight [hereinafter a second weight] of the form Υ^m, where $0<\Upsilon<1$ is a constant and m is the total number of mistakes incurred by the expert so far. The essential property is that the weight of experts making many mistakes rapidly disappears. By a specific, non limiting case, a variant of the above mentioned weighted majority scheme is utilized in which Υ is initially set to 1 and decreases its value with the number of examples seen, to avoid weighing mistakes of the initial hypotheses too heavily").

It would have been obvious to one of ordinary skill in the art to combine Man-Hak Tso with Roth for reasons discussed above in reference to claim 3.

10.   Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Man-Hak Tso in

view of Tamura (USPN 5,640,556).

        As per claim 5, Tamura discloses the following limitations not shown by Man-Hak Tso,

specifically an information coincidence method according to claim 1, wherein said method is

performed when any of said common data is accessed (col. 1 lines 18-39, "The client node

executes these application programs to manipulate a database for changing information therein

such as retrieving, appending and updating data. In this event, when the client node accesses a

record file maintained by the server node for updating or appending data, control is passed to the

server node and the client node is suspended until the former completes delivery of data").

        It would have been obvious to one of ordinary skill in the art to combine Man-Hak Tso

with Tamura since any time that data is accessed, there exists the potential that the data may be

changed. Although Man-Hak Tso performs synchronization in response to a change detection, to

update every time that data is accessed further reduces chances for inconsistent data. When data

is shared among a plurality of elements, it is important that the shared data is up to date. By

synchronizing the data each time it is accessed, this can be achieved.

11.   Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Man-Hak Tso.

        As per claim 7, "Official Notice" is taken that the inclusion of the following limitations

not shown by Man-Hak Tso would have been obvious to one of ordinary skill in the art,

specifically an information coincidence method according to claim 1, wherein said method is

performed at a predetermined time.

To perform data synchronizations at predetermined times is well known and expected in

the art. Specifically, synchronization methods are known where a predefined time interval is

allowed to pass between synchronizations. While Man-Hak Tso synchronizes when data has

been changed, there exists the possibility that data may get changed during long periods without

synchronization. If the change detection circuit somehow misses the change, a data discrepancy

could exist that may compromise calculations. Thus, to synchronize after a predetermined time

regardless of other circumstances, the chances that data discrepancies exist can be reduced.

12.   Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Poland et al.

(USPN 5,172,314) (hereinafter Poland) in view of DeTemple et al. (USPN 5,995,015)

(hereinafter DeTemple).

As per claim 15, Poland discloses a product advertisement method comprising the steps

of:

providing a computation device to respective plural products of the same type (col. 5

lines 33-40, "Proposed price changes are received by the apparatus in block 60", wherein the

apparatus is a computation device that handles pricing synchronization);

providing price data indicating a price to said respective products (col. 5 lines 41-54,

"The first [or next[of the proposed price changes is located in block 61");

receiving said price data by at least one of said plural products from other products, and

based on said price data and said price data received from other products, determining by said

computation device a price as price data for coincidence among said plural products (col. 5 lines

41-54, "a test is made to determine whether a product can be found in the database 53 that

matches the product for which a price change has been processed");

controlling said price data in said plural products to coincide with each other based on the

determined price (col. 5 lines 41-54, "the changed price is posted to the database, changing the

contents of field 52 for the matching record"); and

transmitting said coincide-processed price data to a store apparatus of a store handling

said products (col. 5 lines 33-40, "Proposed price changes are received by the apparatus in block

60. Generally the price changes are received from chain management...by floppy disk or by

modem transmission, or by other means").

DeTemple discloses the following limitations not shown by Poland, specifically

transmitting advertisement information including said coincidence-processed price data from

said store apparatus via a network to customer apparatuses of persons who can be customers of

said products (col. 2 line 65 - col. 3 line 32, "The present invention provides an integrated

pricing, advertising, and tracking system for displaying current pricing information as well as

advertising information on remote display terminals, and tracking customer activity throughout a

store. The system has a store platform computer which provides a database for pricing,

advertising, and tracking information within each store").

It would have been obvious to one of ordinary skill in the art to combine Poland with

DeTemple since providing customers with current pricing information would be a good way of

increasing sales. Specifically, a customer may be interested in a product and upon noticing that

the price has decreased, may make a decision to buy the product. Furthermore, having pricing

and advertising information readily available provides a valuable service to customers, thereby

increasing overall satisfaction. The disclosure of DeTemple also would be easily combinable

with Poland, in the sense that Poland discloses a system for updating and resolving pricing

discrepancies, but was invented at a time before online shopping and other such systems created

a need for customers to have information so quickly. The database of DeTemple could easily

implement a similar price updating mechanism as in Poland to arrive at the claimed invention.

Conclusion

13.   The prior art made of record and not relied upon is considered pertinent to applicant's
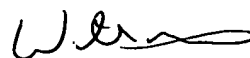
disclosure.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Syed J Ali whose telephone number is (703) 305-8106. The

examiner can normally be reached on Mon-Fri 8-5:30, 2nd Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, William A Grant can be reached on (703) 308-1108. The fax phone number for the

organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is (703) 305-3900.

Syed Ali
October 21, 2003

WILLIAM GRANT
SUPER~~ ... ~~ EXAMINER
TE~~........ ......~~ 2100